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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Attorney Docket No.: 40036-0013

Applicant: Charles Bryan BYRD et al. Confirmation No. 2759

Appl. No.: 10/827,520 Examiner: Unassigned

Filing Date: April 20, 2004 Art Unit: 3737

Title: METHOD AND APPARATUS FOR ULTRASOUND IMAGING WITH  
AUTOFREQUENCY SELECTION

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §1.56 and 37 CFR §1.97**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08A is a listing of documents known to applicants in order to comply with applicants' duty of disclosure pursuant to 37 C.F.R. §1.56 and §1.97. A copy of each of the listed documents are being submitted to comply with the provisions of 37 C.F.R. §1.97-1.99.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or is considered to be material to patentability as defined in 37 C.F.R. §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* prior art reference against the claims of the present application.

**TIMING/FEE**

The instant Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits under 37 CFR §1.97(b)(3), therefore, no fee is required in connection with its filing. However, the Commissioner is hereby authorized to charge any deficiency or to credit any overpayment to Deposit Account No. 08-1641.

Applicants respectfully request that the listed documents be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08A be returned in accordance with M.P.E.P. §609.

Respectfully submitted,

Date: March 31, 2006  
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Please type a plus sign (+) inside this box  PTO/SB/08A (08-00)

MAR 31 2006

Approved for use through 10/31/2002. OMB 0651-0031

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Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1 of 3

### Complete if Known

Application Number	10/827,520
Filing Date	April 20, 2004
First Named Inventor	Charles Bryan BYRD et al.
Group Art Unit	3737
Examiner Name	Unassigned

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### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	B01	ANTONIO L. BARTORELLI, M.D. et al., "Plaque Characterization of Atherosclerotic Coronary Arteries by Intravascular Ultrasound", Echocardiography: A Journal of CV Ultrasound & Allied Tech, 1990, pp. 389-395, Vol. 7, No. 4	
	B02	N. BOM et al., "Early and recent intraluminal ultrasound devices", International Journal of Cardiac Imaging, 1989, pp. 79-88, Vol. 4	
	B03	R.J. CROWLEY et al., "Optimized ultrasound imaging catheters for use in the vascular system", International Journal of Cardiac Imaging, 1989, pp. 145-151, Vol. 4	
	B04	R.J. CROWLEY, et al., "Ultrasound guided therapeutic catheters: recent developments and clinical results", International Journal of Cardiac Imaging, 1991, pp. 145-156, Vol. 6	
	B05	RICHARD A. CARLETON, M.D., et al., "Measurement of Left Ventricular Diameter In the Dog by Cardiac Catheterization", Circulation Research, May 1968, pp. 545-558, Vol. XXII	
	B06	R.J. CROWLEY et al., "Optimized ultrasound imaging catheters for use in the vascular system", International Journal of Cardiac Imaging, 1989, pp. 145-151, Vol. 4	
	B07	TAHER ELKADI et al., "Importance of Color Flow Doppler (CFD) Imaging of the Right Ventricular Outflow Tract and Pulmonary Arteries by Transesophageal Echocardiography (TEE) During Surgery for CHD", Supplement III Circulation, October 1990, p. III-438, Vol. 82, No. 4	
	B08	PHILIP C. CURRIE, "Transesophageal Echocardiography New Window to the Heart", Circulation, July 1989, pp. 215-217, Vol. 88, No. 1	
	B09	STEVEN SCHWARTZ et al., "In Vivo Intracardiac 2-D Echocardiography: Effects of Transducer Frequency, Imaging Approached and Comparison with Fiberoptic Angioscopy", JACC, February 1990, pp. 29A, Vol. 15, No. 2	
	B10	J. SOUQUET et al., "Transesophageal Phased Array for Imaging the Heart", IEEE Transactions on Biomedical Engineering, Octboer 1982, pp. 707-712, Vol. BME-29, No. 10	
	B11	CRAIG J. HARTLEY, "Review of Intracoronary Doppler catheters", International Journal of Cardiac Imaging", 1989, pp. 159-168, Vol. 4	
	B12	JOHN McB. HODGSON et al., "Percutaneous Intravascular Ultrasound Imaging: Validation of a Real-Time Synthetic Aperture Array Catheter", American Journal of Cardiac Imaging", March 1991, pp. 56-71, Vol. 5, No. 1	
	B13	J. McB. HODGSON et al., "Clinical percutaneous imaging of coronary anatomy using an over-the-wire ultrasound catheter system", International Journal of Cardiact Imaging, 1989, pp. 187-193, Vol. 4	

Examiner Signature

Date Considered

<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO		<b>Complete if Known</b>	
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		Group Art Unit	3737
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	B14	BRENDA S. KUSAY et al., "Realtime in Vivo Intracardiac Two-Dimensional Echocardiography and Color Flow Imaging: Approaches, Imaging Planes, and Echo Anatomy", Abstracts of the 62 <sup>nd</sup> Scientific Sessions, 1989, p. II-581	
	B15	CHARLES T. LANCEE, "A Transesophageal Phased Array Transducer for Ultrasonic Imaging of the Heart", 1987	
	B16	NATESA PANDIAN et al., "Enhanced Depth of Field in Intracardiac 2-D Echocardiography with a New Prototype, Low Frequency (12 MHz, 9 French) Ultrasound Catheter", Supplemental III Circulation, October 1990, p. III-442, Vol. 82, No. 4	
	B17	NATESA G. PANDIAN, M.D. et al., "Intravascular and Intracardiac Ultrasound Imaging: Current Research and Future Directions", Echocardiography: A Journal of CV Ultrasound & Allied Tech., 1990, pp. 377-387, Vol. 7, No. 4	
	B18	NATESA G. PANDIAN, M.D. et al., "Intracardiac, Intravascular, Two-Dimensional, High-Frequency Ultrasound Imaging of Pulmonary Artery and Its Branches in Humans and Animals", Circulation, June 1990, pp. 2007-2012, Vol. 81, No. 6	
	B19	F. RICOU et al., "Applications of intravascular scanning and transesophageal echocardiography in congenital heart disease: tradeoffs and the merging of technologies", International Journal of Cardiac Imaging, 1991, pp. 221-230, Vol. 6	
	B20	SAMUEL B. RITTER, M.D., et al., "Transesophageal real time Doppler flow imaging in congenital heart disease: experience with a new pediatric trasducer probe", 1989, Dynamedia, Inc.	
	B21	SAMUEL B. RITTER, M.D., et al., "Pediatric Transesophageal Color Flow Imaging: Smaller Probes for Smaller Hearts", 1989	
	B22	DAVID J. SAHN, M.D., et al., "Important Roles of Transesophageal Color Doppler Flow Mapping Studies (TEE) in Infants With Congenital Heart Disease", IACC, February 1990, p. 204A, Vol. 15, No. 2	
	B23	DAVID J. SAHN, M.D. et al., "Miniaturized High Frequency Phased Array Devices for High Resolution Neonatal and Intraoperative Imaging", JACC, February 1990, p. 10A, Vol. 15, No. 2	
	B24	DAVID J. SAHN, M.D., et al., "Phased Arrays for Multiplane Esophageal Echos in Infants", Grant Application, Department of Health and Human Services Public Health Service, 1992	
	B25	STEVEN SCHWARTZ, M.D., et al., "Intracardiac Echocardiographic Guidance and Monitoring During Aortic and Mitral Balloon Valvuloplasty", JACC, February 1990, p. 104A, Vol. 15, No. 2	
	B26	JAMES B. SEWARD, M.D. et al., "Biplanar Transesophageal Echocardiography: Anatomic Correlations, Image Orientation, and Clinical Applications", Mayo Clin Proc., 1990, pp. 1198-1213, Vol. 65	

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	B27	JAMES B. SEWARD, M.D. et al., "Wide-Field Transesophageal Echocardiographic Tomography: Feasibility Study", Mayo Clin Proc. 1990, pp. 31-37, Vol. 65		
	B28	KHALID H. SHEIKH, M.D., et al., "Interventional Applications of Intravascular Ultrasound Imaging: Initial Experience and Future Perspectives", Echocardiography: A Journal of CV Ultrasound & Allied Tech., pp. 433-441, Vol. 7, No. 4		
	B29	PAUL G. YOCK, M.D., et al., "Two-Dimensional Intravascular Ultrasound: Technical Development and Initial Clinical Experience", Journal of American Society of Echocardiography, 1989, pp. 296-304, Vol. 2, No. 4		
	B30	PAUL G. YOCK, M.D. et al., "Real-Time, Two-Dimensional Catheter Ultrasound: A New Technique for High-Resolution Intravascular Imaging", JACC, February 1988, p. 130A, Vol. 11, No. 2		
	B31	P. YOCK et al., "Intravascular Two-Dimensional Catheter Ultrasound: Initial Clinical Studies", Abstracts of the 61 <sup>st</sup> Scientist Sessions, p. II-21		
	B32	MICHAEL J. EBERLE et al., "Validation of a New Real Time Percutaneous Intravascular Ultrasound Imaging Catheter", Abstracts of the 61 <sup>st</sup> Scientist Sessions, p. II-21		
	B33	NATASA PANDIAN et al., "Intraluminal Ultrasound Angioscopic Detection of Arterial Dissection and Intimal Flaps: In Vitro and In Vivo Studies", Abstracts of the 61 <sup>st</sup> Scientist Sessions, p. II-21		
	B34	JOHN A. MALLERY et al., "Evaluation of an Intravascular ultrasound Imaging Catheter in Porcine Peripheral and Coronary Arteries <u>In Vivo</u> ", Abstracts of the 61 <sup>st</sup> Scientist Sessions, p. II-21		
	B35	ANDREW WINTRAUB, M.D., "Realtime Intracardiac Two-Dimensional Echocardiography in the Catheterization Laboratory in Humans", Intravascular Imaging I, March 19, 1990		

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